

**REMARKS**

Reconsideration of the Office action mailed March 7, 2005 is requested in view of the foregoing amendments and the following remarks.

**Special Circumstances**

The Examiner asked applicant to point out any material information from co-pending applications listed as parents to the instant application if the criteria for materiality applies and if the examination record provides reason for applicant to believe that the Examiner has not considered such information. Applicant has previously identified applications and believes that identification satisfies the duty of disclosure. Applicant is also attaching an updated list of applications and patents to this document. The Examiner is requested to inform applicant if further information is needed.

**Double Patenting**

Claims 1-4, 21, 25, 26 and 34 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting in light of claims 6-15, 19 and 20 from application number 10/052,806 (now US Patent 6,880,440). This rejection is traversed because a two-way test for obviousness should have been applied.

Section 804(II)(B)(1)(b) from the MPEP explains:

[W]here, through no fault of the applicant, the claims in a later filed application issue first, an obvious-type double patenting rejection is improper, in the absence of a two-way obviousness determination, because the applicant does not have complete control over the rate of progress of a patent application through the Office.

This rule is taken from the case of In re Braat, 937 F.2d 589, 19 USPQ2d 1289 (Fed. Cir. 1991). In that case, the Board of Patent Appeals and Interferences affirmed an obviousness-type double patenting rejection of an earlier-filed application in view of a

commonly-assigned but later-filed patent. Both the application and the patent concerned optical record carriers such as CDs. The Board applied a one-way test for obviousness and determined that the claims at issue from the earlier-filed application were obvious in light of claims from the later-filed patent. The Federal Circuit reversed and explained that a two-way test should have been applied because the two applications could not have been filed together as one, because it was not applicant's fault that the later-filed application issued first, and because the later-filed claims were not obvious in light of the earlier-filed claims. Id. at 594, 19 USPQ2d at 1293. The court explained that the rationale behind the application of the two-way test "is that an applicant (or applicants), who files applications for basic and improvement patents should not be penalized by the rate of progress of the applications through the PTO, a matter over which the applicant does not have complete control." Id. at 593, 19 USPQ2d at 1292 (citing 3 D. Chisum, *Patents*, §9.03[2][c] (1990), and the following cases: In re Borah, 345 F.2d 1009, 148 USPQ 213 (CCPA 1966), In re Stanley, 214 F.2d 151, 102 USPQ 234 (CCPA 1954), In re Calvert, 97 F.2d 638, 38 USPQ 184 (CCPA 1938), Thomson-Houston Elec. Co. v. Elmira & Horseheads Ry. Co., 71 F. 396 (2d Cir.), *cert. denied* 163 U.S. 685, 16 S.Ct. 1201, 41 L.Ed.2d 315 (1896), Thomson-Houston Elec. Co. v. Ohio Brass Co., 80 F. 712 (6<sup>th</sup> Cir. 1897)).

The case of In re Berg, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998), further explains when a two-way test applies. In Berg, the Federal Circuit affirmed a one-way double patenting rejection of genus claims in light of nearly identical species claims. The claims concerned a method of preparing abrasive particles for use as an abrasive grit. The genus and species claims were the subject of two separate

applications filed the same day. The species claims issued first and the Patent Office applied a one-way test to reject the genus claims in light of the species claims. The court affirmed the double patenting rejection and the application of the one-way test because Berg could have filed all the claims in a single application but instead chose to file two separate applications on the same day. Id. at 1433, 46 USPQ2d at 1230.

Even though Berg affirmed the application of the one-way test, the court recognized that the two-way test applies when a later-filed improvement patent issues before an earlier-filed basic invention. The court distinguished Braat by saying: "Braat ... emphasized the more typical scenario in which, despite common inventive entities, the two-way test applied: 'when a later-filed improvement patent issues before an earlier filed basic invention.'" Id. at 1434, 46 USPQ2d at 1230 (quoting In re Braat, 937 F.2d at 593, 19 USPQ2d at 1292, emphasis added in Berg). The court in Berg also said the "essential concern" behind the two-way test "was to prevent rejections for obviousness-type double patenting when the applicants filed first for a basic invention and later for an improvement, but, through no fault of the applicants, the PTO decided the applications in reverse order of filing, rejecting the basic application although it would have been allowed if the applications had been decided in the order of their filing." Id. at 1432, 46 USPQ2d at 1229. These statements confirm that the two-way test applies when a later-filed Improvement patent issues before an earlier-filed application through no fault of applicant.

The situation in the present application is the same as in Braat and as described in Berg, and therefore, the two-way test for obviousness should apply. The present application was filed before the cited patent and the cited patent could not have been

filed with the present application because it includes additional disclosure of later-developed material. It is not applicant's fault that the cited patent issued first. Also, the cited claims from the later-filed patent are not obvious in light of the earlier-filed claims.

The Examiner may have applied a one-way test because he thought administrative delay is required for a two-way test. However, saying administrative delay is required for the two-way test is another way of saying the two-way test applies if the administrative process, and not some action taken by the applicant, delayed issuance of the first-filed application until after issuance of the later-filed application. In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233. If the delay was no fault of applicants, or in other words, if applicant did not take some action to delay the issuance of the first application, then the Patent Office (i.e., the administrative process) is responsible for the delay. Only if applicant took some action to delay the issuance of the first application until after the second patent issues could a one-way test be appropriate. Id.

The cases of Braat and Berg illustrate this point. In Braat the Federal Circuit applied the two-way test because it was "not [applicant's] fault that the combination claims in the [subsequent] patent issued first." Braat, 937 F.2d at 594, 19 USPQ2d at 1293. Applicant did not act to delay the issuance of the first application. In Berg the Federal Circuit did not decide whether there was delay, but gave the following examples of how an applicant could delay the issuance of a first-filed application: "filing the genus claims long after the species claims even though the two were invented at nearly the same time or the genus claims were invented first, or by filing numerous continuations in the genus application while failing to respond substantively to PTO Office actions." In

re Berg, 140 F.3d at 1434 n.6, 46 USPQ2d at 1231 n.6 (citing In re Emert, 124 F.3d 1458, 1461, 44 USPQ2d 1149, 1152 (Fed. Cir. 1997)).

The present application is similar to Braat because applicant did not act to delay the issuance of the first application. The present application was filed first, before the cited application. The provisional applications from which the cited application claims priority were filed six months after the present application, and the cited application was filed as a continuation-in-part to the present application (and to other applications). Also, the present application is not the result of multiple continuation applications, and applicant has responded substantively and promptly to each Office action. Thus, none of the acts identified in Berg by which an applicant may delay prosecution are found in the present application. On the other hand, the Patent Office did not issue a first action in the present application until two years after filing. These facts show that it is not applicant's fault that the claims in the later-filed application issued first, and therefore, a two-way test should be applied, as explained in Braat and Berg.

It may be that claims in a later-filed application issue before claims in an earlier-filed application simply because more time is required to determine the patentability of the earlier-filed claims. Any such delay, however, is not applicant's fault; rather, it is simply the result of the administrative process. The Federal Circuit recognized in Braat, 937 F.2d at 593, 19 USPQ2d at 1292, that applicant "should not be penalized by the rate of progress of the applications through the PTO," and therefore, any delay resulting from the administrative process is properly credited to the Patent Office.

For all these reasons, a two-way obviousness test should be applied. Under that test, the present double patenting rejection is improper and should be withdrawn

because the cited claims include limitations that distinguish and are not obvious over the claims in the present application.

Applicant also points out that the policy behind an obviousness-type double patenting rejection is "to prevent an unjustified extension of the term of the right to exclude granted by a patent by allowing a second patent claiming an obvious variant of the same invention to issue to the same owner later." In re Berg, 140 F.3d at 1431-1432, 46 USPQ2d at 1229. This is not a concern in the present application because patent term is now measured from the filing date rather than the issue date. 35 USC 154(a)(2).

Applicant further points out that this double patenting rejection of earlier-filed claims is inconsistent with the practice of filing continuation-in-part applications. The rejection, if correct, would mean that a subsequent invention comprising A, B and C could be the basis for a double patenting rejection of a previous invention comprising only A and B even though the subsequent invention could not have been included in the prior application because it had not yet been invented and even though the claims to the subsequent invention could not be added to the earlier application because those claims would constitute new matter. The result would be to unfairly limit the ability of an inventor to file applications on subsequent inventions, which is contrary to the ruling of Braat discussed above.

This double patenting rejection also results in unequal treatment under the patent laws. Specifically, this double patenting rejection prevents applicant from receiving separate patents to genus and species inventions simply because one application includes claims that dominate claims in the other application, even though others could

obtain separate patents. For example, if a third party invented the machine described in the cited claims instead of applicant, then both applicant and the third party could patent their respective inventions without receiving a double patenting rejection even though the claims to the genus would dominate the claims to the species. If unrelated parties can file separate applications to genus and species claims without invoking a double patenting rejection, then a single party should be able to do likewise.

Applicant also asserts that even under the one-way test, the double patenting rejection should be withdrawn because the claims in the present application do not define merely an obvious variation of the invention defined by claims in the cited application. For example, the claims in the cited application do not recite "a firing subsystem to fuse the fusible member upon detection of the dangerous condition" as recited by claims 2-4 in the present application. Other limitations from claims in the present application that are not recited in the claims from the cited application include: "where the dangerous condition is contact between the person and the blade" (claim 3), "where the reaction system is a brake mechanism and where the specified action is to decelerate the blade" (claim 4), "a detection system adapted to detect contact between a person and the cutting tool" (claim 21), "a brake system including a brake pawl adapted to engage and stop the cutting tool when the detection system detects contact between the person and the cutter; where the brake system includes a release mechanism adapted to selectively restrain the brake pawl from engaging the cutter until the detection system detects contact between the person and the cutter; and where the release mechanism includes a fuse wire that is melted upon detection of contact between the person and the cutter" (claim 21), "a brake adapted to stop the cutter,

where the brake has an idle position and a braking position; and an actuation system adapted to selectively move the brake from the idle position to the braking position, where at least a portion of the actuation system must be replaced after moving the brake from the idle position to the braking position" (claim 25), "wherein the actuation system includes a fusible member that is melted to allow the brake to move from the idle position to the braking position" (claim 26), and "firing means for fusing the fusible member upon detection of the dangerous condition" (claim 34). Additionally, the cited claims include limitations not found in the claims of the present application and those limitations result in claims that define an invention patentably distinct from the claims in the present application. See General Foods Corp. v. Studiengesellschaft Kohle mbH, 23 USPQ2d 1839, 1843 (Fed. Cir. 1992) ("Anything less than a process with all 9 steps is not what is claimed, and is, therefore, not patented."); In re Stanley and Lowe, 102 USPQ 234, 240 (CCPA 1954) (appealed claims were distinguishable from improvement claims because the improvement claims included additional limitations).

Claims 1-4, 21, 25, 26 and 34 were also provisionally rejected under the judicially created doctrine of obviousness-type double patenting in light of claims 1-10 from co-pending application number 10/643,296. Applicant points out that co-pending claim 1 has been amended and co-pending claims 6 and 9 have been cancelled without prejudice. As a result, appellant believes this rejection is moot.



**Claim Rejections – 35 USC 103**

The Examiner rejected claims 1-5, 8-12, 21, 25, 26 and 34 under 35 USC 103(a) as obvious over Friemann (US Patent 3,858,095) or Yoneda (US Patent 3,858,095) combined with Baur (US Patent 3,695,116). Applicant traversed a similar rejection in a prior amendment. One reason applicant traversed the rejection is because the actuator disclosed in Baur would change the principle of operation of the band cutter disclosed in Friemann and Yoneda and it is well established that changing the principle of operation shows there is no suggestion to combine references. See MPEP 2143.01. The Examiner now repeats the rejection and responds to applicant's argument by saying:

Applicant contends that there is no suggestion or motivation to use the fusible member as taught by Baur with the devices of Friemann or Yoneda and any such combination would significantly change the devices whereby the intended operation of the devices would be restricted. However, the examiner respectfully disagrees. For example, claims 1 and 2 are so broad in scope that the specified action need not even be remotely related to cutting tool [sic]. The specified action could encompass turning a light switch on. (Office action, 13.)

The Examiner's reasoning, however, does not address whether the proposed combination would change the principle of operation of the band cutters disclosed in Friemann and Yoneda because the scope of claim 1 is irrelevant to that question. Friemann and Yoneda both disclose brake systems capable of repeated actuations without the need to change or replace any component. Baur's actuator, in contrast, is a single-use actuator that cannot trigger a brake multiple times. If the brake system of Friemann or Yoneda could somehow be modified to include Baur's actuator, then the resulting brake system would no longer be capable of repeated actuations. Instead, the brake system could trigger only once and then the actuator would have to be replaced.

That is a change in the principle of operation of the brake systems disclosed in Friemann and Yoneda, and that change exists regardless of whether the action specified by claim 1 encompasses "turning a light switch on," as stated by the Examiner, or some other action. Accordingly, applicant does not understand why the Examiner referred to the scope of the claim.<sup>1</sup>

Another reason applicant traversed the rejection is because there is no reasonable expectation that an actuator like the one disclosed in Baur could work in a band cutter as disclosed in Friemann or Yoneda, and it is also well established that without that expectation there is no suggestion to make the combination. MPEP 2143.02. As explained previously, Baur shows an actuator made from a "collapsible dual piston assembly." (Baur, column 1, lines 50-51.) The pistons are prevented from collapsing by a pair of shear pins. The shear pins are made from a heat-ignitable material so that when they ignite, they release the pistons and allow them to collapse. (Baur, column 1, lines 51-68.) Figure 7 in Baur shows how the actuator may be used. A pair of springs 58 in a housing 55 push on pivotable latches 62 and an actuator 50 prevents the latches from pivoting until the shear pins are ignited. When the shear pins are ignited, the actuator collapses under the force of the springs. The wire coils or solenoids in the electromechanical brakes of Friemann and Yoneda, in contrast, energize a coil to create an electromagnetic force and that force moves an armature

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<sup>1</sup>Applicant also points out that the Examiner's statement "that the specified action need not even be remotely related to cutting tool" ignores the rest of the claim. Claim 1 requires "a reaction system adapted to perform a specified action to mitigate possible injury from [a] dangerous condition" between a person and a blade, and the action is triggered "upon detection of the dangerous condition." Thus, the action is related to the blade and the dangerous condition.

into contact with a braking surface. Friction between the armature and braking surface causes the braking. A continuous current is required to energize the coil to create the electromagnetic force, but an actuator like the one disclosed in Baur does not apply or trigger a continuous electrical current, so there is no likelihood that such an actuator could work in an electromechanical brake as disclosed in Friemann and Yoneda. Moreover, there is no reason to incorporate an actuator as disclosed in Baur into a brake system as disclosed in Friemann and Yoneda because an electromechanical brake is triggered electrically, not mechanically. In other words, Baur could not replace an electromechanical brake because Baur could not apply the required braking force, and there is no need for Baur to trigger the electromechanical brake because the brake is triggered when current energizes the coil to create the electromagnetic force. Adding an actuator like Baur's to an electromechanical brake as disclosed in Friemann or Yoneda would be superfluous. As a result, the combination of Friemann or Yoneda with Baur is not obvious.

The Examiner responded to this point by saying: "[I]t should be noted that there is no requirement for the references to be bodily incorporated together; but, rather what the combined teachings of the references would have suggested to those of ordinary skill in the art." (Office action, 14.) Applicant is not saying that the specific actuator of Baur must be bodily incorporated into the structure of Friemann or Yoneda. Rather, applicant is saying that actuators like the one disclosed in Baur do not work with and are superfluous to electromechanical brakes like those disclosed in Friemann and Yoneda that require an electromagnetic force to move an armature into contact with a braking surface.

The only suggestion proffered by the Examiner to combine references is the following: "In this case, Friemann, Yoneda, and Baur suggest using fast action release mechanisms for releasing the brakes cutting tools in order to create less expensive, smaller and fast acting braking systems." (Office action, 14.) Applicant is unaware of any teaching or suggestion in the cited references to support that conclusion. In fact, as explained previously, the opposite conclusion is more likely. For example, the dual-piston structure and the heat-ignitable material used in Baur's actuators would likely cause those actuators to be more expensive than wire coils or solenoids, especially over the long term where Baur's actuators would have to be replaced after each use. Baur's actuators would also be additional to, not a replacement for, the wire coils or solenoids of Friemann and Yoneda because Baur's actuator could not supply the required electromagnetic force. Adding Baur's actuator would also likely result in a larger overall system given the fact that Baur's actuators require additional structure, such as shown in Figures 7 and 8 of Baur, in order for the actuator to trigger some action. The only example given by Baur as to the speed at which his actuator works is that the dual-pistons may collapse within 40 milliseconds when subjected to a biasing force of 80 pounds. (Column 5, lines 21-24.) It is unclear whether that is faster than energizing coils like those in the electromechanical brakes disclosed in Friemann and Yoneda. The lack of support for the suggestion proffered by the Examiner, plus the fact that the combination is unlikely to succeed and even if it did it would change the principle of operation of Friemann and Yoneda, all support the conclusion that claim 1 is not obvious.

It is important to understand that the mere existence of a fusible actuator as disclosed in Baur does not mean it would have been obvious to use such an actuator in a machine as set forth in claim 1. There must be some suggestion to make the combination, but the cited references fail to make any such suggestion. In fact, they fail to even identify a need for such an actuator in a system with electromechanical brakes. The only teaching or suggestion to use a fusible member to trigger a reaction system in a cutting machine is found in applicant's teachings. If one has not reviewed applicant's disclosure, there would be no reason to include a fusible member in a cutting machine to trigger some action in response to the detection of a dangerous condition; one would use systems like those disclosed in Friemann or Yoneda instead. In an obviousness analysis, however, one must review the prior art without the benefit of applicant's disclosure. One cannot use the teaching of applicant's disclosure to suggest the modification to the prior art. The law is "clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references." In re Dembiczak, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) (citations omitted). A suggestion, teaching or motivation to combine or modify references "must be clear and particular." Id. (citation omitted). There simply is no clear and particular suggestion, teaching or motivation to modify the brake systems of Friemann or Yoneda to include an actuator with a fusible member, and therefore, the conclusion of obviousness should be withdrawn.

Claims 2-5 are not obvious in light of the cited references for the same reasons given above concerning claim 1.

Claim 8 depends from claim 2 and is not obvious for the same reasons that claim 2 is not obvious. Claim 8 also specifies that "the fusible member is held in tension." Baur fails to disclose this limitation. Instead, Baur discloses fusible shear pins. (Baur, column 1, lines 51-68.) This is another reason claim 8 is not obvious in light of the cited references. MPEP 2143.03 (all claim limitations must be taught or suggested).

Claims 9 depends from claim 2 and claim 10 depends from claim 9. Those claims are not obvious for the same reasons that claim 2 is not obvious.

Claims 11 and 12 depend from claim 9 and are not obvious for the same reasons that claim 9 is not obvious. Claim 11 also specifies that "the spacing between the electrodes is less than 0.1 inch (2.54 millimeters)." Claim 12 also specifies that "the spacing between the electrodes is less than 0.05 inch (1.27 millimeters)." These limitations are not disclosed in the cited references. The Examiner says these limitations would be within the ordinary skill in the art because they are merely changes in size of a component. That is incorrect. These limitations affect how quickly and easily the fusible member can fuse, as shown in Figure 13 and the accompanying text from applicant's specification. There is no teaching or statement in any cited reference suggesting that the spacing between electrodes could be selected to affect how the fusible member fuses. Accordingly, these limitations further distinguish the cited references and these claims are not obvious because of these limitations. MPEP 2143.03.

Claim 21 is not obvious in light of the cited references for the same reasons given above concerning claim 1. Additionally, claim 21 says its brake system includes "a brake pawl adapted to engage and stop the cutting tool when the detection system detects contact between the person and the cutter." The cited references fail to disclose

a brake pawl. Claim 21 also says its brake system includes "a release mechanism adapted to selectively restrain the brake pawl from engaging the cutter until the detection system detects contact between the person and the cutter." The cited references fail to show a release mechanism to restrain the brake pawl. These are additional reasons why claim 21 is not obvious in light of the cited references. MPEP 2143.03.

Claims 25 and 26 are not obvious in light of the cited references for the same reasons given above concerning claim 1. Additionally, claims 25 and 26 recite "an actuation system adapted to selectively move the brake from the idle position to the braking position, where at least a portion of the actuation system must be replaced after moving the brake from the idle position to the braking position." Claim 26 also says "the actuation system includes a fusible member that is melted to allow the brake to move from the idle position to the braking position." The cited references do not teach or suggest how an actuator as disclosed in Baur can move a brake from an idle position to a braking position. This is another reason claims 25 and 26 are not obvious in light of the cited references.

Claim 34 is not obvious in light of the cited references for the same reasons given above concerning claim 1.

The Examiner rejected claim 13 under 35 USC 103(a) as obvious over Friemann or Yoneda combined with Baur and further in view of Gaüs (US Patent 4,589,047). That rejection is traversed for the same reasons as claim 9. Additionally, claim 13 specifies that "the electrodes are traces on a circuit board." The Examiner says Gaüs discloses traces, so it would have been obvious to use traces as electrodes. That is incorrect. As

explained in response to the prior Office action, nothing in Gaüs suggests using traces on a circuit board as electrodes to fuse a fusible member. On the contrary, Gaüs shows a fusible wire 10 wound to pins 38 and 39 – the fusible wire does not contact traces.

The Examiner rejected claim 15 under 35 USC 103(a) as obvious over Friemann or Yoneda combined with Baur and further in view of Gaüs. This rejection is traversed. Claim 15 depends from claim 2 and should be allowed for the same reasons as claim 2. Additionally, claim 15 specifies that the firing subsystem includes at least one silicon controlled rectifier.

The Examiner also rejected claims 1, 2, 4, 5, 8-15, 21, 25 and 26 under 35 USC 103(a) as obvious over Friemann or Yoneda combined with Gaüs. Applicant traverses this rejection, and traversed a similar rejection in a prior amendment.

The Examiner says Friemann and Yoneda disclose cutting machines with detection systems to detect dangerous conditions and reaction systems to perform a specified action upon detection of a dangerous condition, but the Examiner recognizes that they do not disclose a fusible member or a firing subsystem. The Examiner says Gaüs "discloses that it is old and well known in the art to use switching devices comprised of spring biased actuators with firing subsystems that are electrically responsive by tensioned wires for the purpose of providing fast acting, less expensive, and smaller devices that provide large mechanical forces," and "[t]herefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to replace the electromagnetic/solenoid actuators of Friemann et al., and Yoneda with spring loaded actuators with firing subsystems, as taught by Gaiis et al. [sic], in



order to create less expensive, smaller and fast acting braking systems." (Office action, 8-9.)

Gaüs is like Baur in that it discloses a single-use device. Using the device of Gaüs in the systems of Friemann or Yoneda, if it were possible to do so, would change the principle of operation of Friemann and Yoneda from systems capable of multiple uses to single-use systems, and that is improper. MPEP 2143.01. Gaüs is also like Baur in that there is no reasonable expectation that a protective mechanism like the one disclosed in Gaüs could work in a band cutter as disclosed in Friemann or Yoneda. As explained, Gaüs shows a small wire 10 wound around pins 38 and 39, and a spring clip 35 is held by the wire. Friemann and Yoneda, in contrast, energize a wire coil to create an electromagnetic force to move an armature into contact with a braking surface. A continuous current is required to energize the coil to create the electromagnetic force, but a mechanism as disclosed in Gaüs does not apply or trigger a continuous current, so one could not replace the electromagnetic/solenoid actuators of Friemann and Yoneda with the device disclosed in Baur. Moreover, there is no reason to incorporate a mechanism as disclosed in Gaüs into a brake system as disclosed in Friemann and Yoneda because, as explained above, an electromechanical brake is triggered electrically, not mechanically. In other words, Gaüs could not replace an electromechanical brake because Gaüs could not apply the required braking force, and there is no need for Gaüs to trigger the electromechanical brake because the brake is triggered when current energizes the coil to create the electromagnetic force. As a result, the combination of Friemann or Yoneda with Gaüs is not obvious.

Gaüs' system is also designed to trigger upon an undesired increase in current flow, not upon detection of a dangerous condition between a person and a blade or cutting tool. There is no teaching or suggestion how Gaüs' system could detect a dangerous condition between a person and the blade.

The simple fact that Gaüs discloses a fusible member used in a protective circuit for devices such as hair dryers does not mean that it would have been obvious to include a fusible member and firing subsystem in a cutting machine to trigger an action upon the detection of a dangerous condition between a person and a cutting tool. In fact, applicant asserts that Gaüs is outside of the proper scope and content of the prior art for an obviousness inquiry concerning cutting machines.

Gaüs also fails to disclose the spacings recited in claims 10-12, the traces recited in claim 13, the brake pawl and release mechanism recited in claim 21, or the actuation system recited in claims 25 and 26. These are additional reasons why these claims are not obvious.

The Examiner rejected claims 30-33 as anticipated or obvious in light of Julien (US Patent 5,046,426) and McCormick (US Patent 5,471,888). Applicant traverses these rejections but has nevertheless cancelled claims 30-33 without prejudice in order to reduce the number of claims under review and to simplify the issues for a possible appeal, if an appeal becomes necessary. Applicant reserves the right to pursue claims 30-33, or similar claims, in subsequent filings.

Applicant previously submitted a declaration of Stephen F. Gass setting forth objective evidence of non-obviousness. That declaration cited statistics from the U.S. Consumer Product Safety Commission showing there are tens of thousands of people

severely injured with power saws every year in the United States. The number of those injuries clearly shows there has been a long felt but unsatisfied need for safer saws. The fact that others have tried to make safer saws is shown by the Friemann and Yoneda patents cited by the Examiner in the current Office action, and by the Lokey patent cited previously. Despite the fact that others have tried to develop safer saws, the annual number of injuries has stayed essentially the same, showing that the attempts to satisfy the need have failed. The existence of a long-felt need, and the failure of others to satisfy that need, supports the conclusion that applicant's claims are non-obvious.

The Examiner, however, criticized the declaration by saying there is no showing that others were working on the problem. That conclusion is directly contradicted by the existence of the Friemann, Yoneda and Lokey patents which show that others have been trying to develop safer saws for many years. Applicant is submitting with this amendment a Second Declaration of Dr. Stephen F. Gass to introduce additional objective evidence of non-obviousness. Part of the additional evidence is a notice filed with the Department of Justice, Antitrust Division, pursuant to the National Cooperative Research and Production Act of 1993, by The Black & Decker Corp., Hitachi Koki, U.S.A., Ltd., Pentair Tools Group, Robert Bosch Tool Corporation, and Ryobi Technologies, Inc. The notice was published December 1, 2003, and it says those companies have entered into a joint venture to research and develop "technology for power saw blade contact injury avoidance, including skin sensing systems, blade braking systems, and/or blade guarding systems." A copy of the notice is attached to

the Second Declaration of Dr. Stephen F. Gass. This notice is further evidence that others have been and are continuing to address the need for safer saws.

The Examiner also said: "In addition, there is no evidence that if persons skilled in the art who were presumably working on the problem knew of the teachings of the above cited references; they would still be unable to solve the problem." (Office action, 13.) This criticism mischaracterizes the test for obviousness. The test is not whether others would be unable to solve the problem. Rather, in order to establish obviousness "there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings," and it is the Examiner's burden to identify such a suggestion. MPEP 2143. The fact that others working to provide a safer saw have failed to do so supports the conclusion that there is no suggestion in the prior art to combine the references cited by the Examiner.

The Examiner also said: "The number of accidents reported each year caused by cutting tools does not necessarily suggest a long felt need." (Office action, 13.) Applicant respectfully disagrees. Tens of thousands of sever lacerations and thousands of amputations each year unquestionably establish a long felt need for safer power saws. To say otherwise is to ignore the life-long consequences to the victims of these injuries. Part of the additional evidence submitted with the Second Declaration of Dr. Stephen F. Gass is a report from the U.S. Consumer Product Safety Commission showing that the total cost to society from injuries involving bench and table saws is \$2 billion annually. This supplemental evidence conclusively establishes that there has been a long-felt but unsatisfied need for safer saws.

The Examiner also argued: "If there was a long felt need wouldn't the public be demanding and wouldn't the manufacturers be making at least some attempt to provide some form of braking system no matter how crudely or efficiently the braking system would be?" (Office action, 13.) Applicant responds by saying the public has been demanding safer saws and others have attempted to provide them. The public demand is evident from the awards and media coverage that applicant's technology has received. Specific awards and media coverage was identified in the Declaration of Stephen F. Gass submitted previously. An additional award and additional media coverage is identified in the Second Declaration of Dr. Stephen F. Gass submitted herewith. The additional award is the 2005 Reader's Choice Award from *Woodshop News* magazine, which is an award given to a new tool or machine that has significantly increased productivity or quality of work. The fact that others have attempted to provide safer saws is evident from the Friemann, Yoneda and Lokey patents and from safety features such as blade guards currently used on saws. It is further evident from the fact that other saw manufacturers have entered into the joint venture identified above.

In any event, the fact that no one has invented a workable braking system for power tools does not imply the absence of the need for safer saws. To the contrary, it shows that applicant's invention is non-obvious because no one prior to applicant has developed a workable braking system.

Dr. Gass also explains in his second declaration that saws constructed as claimed in the present application have saved the hands of at least 10 people from serious injury when their hands accidentally contacted the spinning blade of the saw. These people include one high school sophomore, one university student and one blind

woodworker. Ron Huisinga, one of the people whose hand was saved, posted pictures of his accident on the Internet. Those pictures may be viewed by going to [www.huisinga.org](http://www.huisinga.org) and clicking on the words "Click Here." After entering the site, click on the words "Photo Gallery" and then click on the words "The Accident" about half way down on the right side. The fact that the technology claimed in the present application has saved 10 people from what otherwise could have been life-changing injuries is further evidence that the claims are not obvious.

In summary, the differences between the cited references and the claims, the lack of a teaching, suggestion or motivation to modify or combine prior art references, and objective indicia of non-obviousness all clearly support the conclusion that the above-discussed claims are not obvious.

### **Conclusion**

With the entry of the above amendments, and for the reasons discussed herein, Applicant submits that all of the issues raised in the Office action mailed March 7, 2005 have been addressed and overcome.

Respectfully submitted,

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